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10/635,015	08/04/2003	Christopher L. Hamlin	03-0340	7590

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EXAMINER	
KHOSHNOODI, NADIA	
ART UNIT	**PAPER NUMBER**
2137	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/635,015	HAMLIN, CHRISTOPHER L.	
	Examiner	Art Unit	
	NADIA KHOSHNOODI	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *23-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments/ amendments with respect to amended claims 1 & 10 and previously presented claims 2-9 & 11-22 filed 12/3/2007 have been fully considered. In reference to claims 1-9, these amendments have been considered and therefore the claims are rejected under new grounds. In reference to claims 10-22, these amendments have been considered, but they are not persuasive. The Examiner would like to point out that this action is made final (See MPEP 706.07a).

Response to Arguments

Applicants contend that the combination of Elazar in view of Parks et al. fails to teach or suggest "wherein authorization information is securely conveyed into the buried nucleus via the secure protocol, thereby causing the buried nucleus to operate and return a result, the result utilizable for activating an authorized operation, the authorization information being processed by the buried nucleus when the buried nucleus is in operation, thereby making said authorization information and information relating to processing of said authorization information inaccessible for inspection without heroic means once said authorization information is conveyed to the buried nucleus." Examiner respectfully disagrees. Elazar et al. teach that a license which includes several forms of authorization information is conveyed to a DRM device which may decrypt/format the authorization information when received via a secure protocol generated by the license server (par. 38). Elazar et al. further teach that a digital appliance sends requests to the DRM device, where the DRM device then processes the request and then returns the result (par. 39). Thus, Elazar et al. teach wherein authorization information is securely conveyed into

the buried nucleus via the secure protocol, thereby causing the buried nucleus to operate and return a result, the result utilizable for activating an authorized operation (par. 38-39).

Parks et al. suggest that a license is securely provided to the trusted computer component and that the license must be evaluated, where the information is processed in a manner that allows the user to easily circumvent the system, thereby preventing the user to make alterations (col. 4, line 63 - col. 5, line 17). Therefore, Parks et al. suggest the distributed architecture wherein the encrypted key being deciphered within the buried nucleus when the buried nucleus is in operation, thereby making the deciphering operation inaccessible for inspection without heroic means once said encrypted key is conveyed to the buried nucleus.

Elazar et al. was modified by Parks et al. in order to securely transmit the encrypted key and have it deciphered within the buried nucleus to ensure that outsiders/attackers would not be able to easily circumvent the system as motivated by Parks et al. in col. 5, lines 12-17 and col. 5, lines 35-42. Therefore the combination of Elazar et al. and Parks et al. teach the amendments made to the claims. Furthermore, Examiner would like to point out that the language used, such as "utilizable for," is not a positive limitation and only requires the ability to so perform. It does not constitute a limitation in any patentable sense and thus renders the claim broad. Therefore, the claims have been broadly interpreted according to MPEP 2111.

Due to the reasons stated above, the Examiner maintains rejections with respect to pending claims 10-22, and further extends these arguments in reference to claims 1-9 which are now rejected under the same grounds as claims 10-22. The prior arts of records taken singly and/or in combination teach the limitations that the Applicant suggests distinguish from the prior

art. Therefore, it is the Examiner's conclusion that the pending claims are not patentably distinct or non-obvious over the prior art of record as presented.

Claim Rejections - 35 USC § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

II. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elazar et al., US Pub. No. 2004/0039932, and further in view of Parks et al., US Patent No. 7,146,504.

As per claim 1:

Elazar et al. teach a distributed architecture of an information handling system, comprising: a buried nucleus inaccessible for inspection without heroic means while said buried nucleus is in operation (par. 26 and par. 30); and a trusted authority for generating a secure protocol, said secure protocol controlling operation of said buried nucleus (par. 33), wherein authorization information is securely conveyed into the buried nucleus via the secure protocol, thereby causing the buried nucleus to operate and return a result, the result utilizable for activating an authorized operation (par. 38-39)

Not explicitly disclosed is wherein the authorization information being processed by the buried nucleus when the buried nucleus is in operation, thereby making said authorization information and information relating to processing of said authorization information inaccessible for inspection without heroic means once said authorization information is conveyed to the

buried nucleus. However, Parks et al. teach that a license is securely provided to the trusted computer component and that the license must be evaluated, where the information is processed in a manner that allows the user to easily circumvent the system, thereby preventing the user to make alterations (col. 4, line 63 - col. 5, line 5). Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Elazar et al. to process authorization information within the DRM component, i.e. buried nucleus, while it is in operation in order to render the information inaccessible to an attacker. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Parks et al. suggest that sending the content key in encrypted form secures the key so that only that specific user device can obtain access to the digital content the user is authorized to access in col. 4, line 50 – col. 5, line 17 and col. 5, lines 35-42.

As per claim 2:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one LFSR (linear feedback shift register) (par. 25).

As per claim 3:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar teach wherein said buried nucleus includes at least one reconfigurable core (par. 27).

As per claim 4:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one programmable logic block (par. 27).

As per claim 5:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one non-volatile RAM (par. 27).

As per claim 6:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one matrix multiplier (par. 34).

As per claim 7:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said trusted authority is a back-end secure server (par. 33).

As per claim 8:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said trusted authority is a cell phone operator with a trusted command and control center (par. 29).

As per claim 9:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 1. Furthermore, Elazar et al. teach wherein said trusted authority is an encrypted medium (par. 33).

As per claim 10:

Elazar et al. substantially teach a distributed architecture of an information handling system, comprising: (a) a hardware/software system, comprising: a microchip including an outer region having I/O pins and a buried nucleus inaccessible for inspection without heroic means when said buried nucleus is in operation (par. 26 and par. 30); and external software connected to said I/O pins for controlling said I/O pins (par. 25); and (b) a trusted authority for generating a secure protocol, said secure protocol controlling operation of said hardware/software system (par. 36); (c) wherein said buried nucleus is equipped to accept a key delivered through said secure protocol (par. 35, lines 15-16), wherein said key is conveyed into the buried nucleus via the secure protocol, thereby causing the buried nucleus to operate and return a result, the result utilizable for activating an authorized operation (par. 38-39).

Not explicitly disclosed is wherein the buried nucleus is equipped to securely convey an encrypted key, decipher an encrypted key delivered through said secure protocol, and wherein the encrypted key being deciphered within the buried nucleus when the buried nucleus is in operation, thereby making the deciphering operation inaccessible for inspection without heroic means once said encrypted key is conveyed to the buried nucleus. However, Parks et al. teach that a trusted authority which supplies the protected digital content may also encrypt the key used to encrypt the digital content (col. 4, lines 59-61). Furthermore, Parks et al. teach that a license is securely provided to the trusted computer component and that the license must be evaluated, where the information is processed in a manner that allows the user to easily circumvent the system, thereby preventing the user to make alterations (col. 4, line 63 - col. 5, line 5). Therefore, it would have been obvious to a person in the art at the time the invention was

made to modify the method disclosed in Elazar et al. to encrypt the content key where the DRM component, i.e. buried nucleus, can decrypt the content key when it is delivered through a secure protocol and to decipher the encrypted key within the buried nucleus in order to make it inaccessible to an attacker. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Parks et al. suggest that sending the content key in encrypted form secures the key so that only that specific user device can obtain access to the digital content the user is authorized to access in col. 4, line 50 – col. 5, line 17 and col. 5, lines 35-42.

As per claim 11:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one LFSR (linear feedback shift register) (par. 25).

As per claim 12:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one reconfigurable core (par. 27).

As per claim 13:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one programmable logic block (par. 27).

As per claim 14:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one non-volatile RAM (par. 27).

As per claim 15:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said buried nucleus includes at least one matrix multiplier (par. 34).

As per claim 16:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Not explicitly disclosed is wherein said encrypted key is encrypted with digital watermarking. However, Elazar et al. teach encrypting the actual content by adding overlay information. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Elazar et al. to also use digital watermarking to encrypt the key. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Elazar et al. suggest there are several possible ways to encrypt a document which may be used in order to secure and verify the contents which are encrypted in par. 36, lines 5-20.

As per claim 17:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Not explicitly disclosed is wherein said encrypted key is encrypted with a fast elliptical algorithm. However, Elazar et al. teach encrypting the actual content with a fast elliptical algorithm. Therefore, it would have been obvious to a person in the art at the time the invention

was made to modify the method disclosed in Elazar et al. to also use a fast elliptical algorithm to encrypt the key. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Elazar et al. suggest there are several possible encryption algorithms which may be used in order to secure the contents being encrypted in par. 35.

As per claim 18:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Not explicitly disclosed is wherein said encrypted key is encrypted with Triple DES. However, Elazar et al. teach encrypting the actual content with Triple DES. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Elazar et al. to also use a Triple DES to encrypt the key. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since Elazar et al. suggest there are several possible encryption algorithms which may be used in order to secure the contents being encrypted in par. 35.

As per claim 19:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Not explicitly disclosed is wherein said encrypted key is encrypted with a Rijndael algorithm. However, Elazar et al. teach encrypting the actual content with AES. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Elazar et al. to also use a Rijndael algorithm to encrypt the key. This modification would have been obvious because a person having ordinary skill in the art, at the time the

invention was made, would have been motivated to do so since Elazar et al. suggest there are several possible encryption algorithms which may be used in order to secure the contents being encrypted in par. 35.

As per claim 20:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said trusted authority is a back-end secure server (par. 33).

As per claim 21:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said trusted authority is a cell phone operator with a trusted command and control center (par. 29).

As per claim 22:

Elazar et al. and Parks et al. substantially teach the distributed architecture of claim 10. Furthermore, Elazar et al. teach wherein said trusted authority is an encrypted medium (par. 33).

**References Cited, Not Used*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US Patent No. 6,449,367
2. US Pub. No. 2003/0226012
3. US Pub. No. 2003/0007646
4. US Pub. No. 2004/0054894
5. US Pub. No. 2003/0191942
6. US Pub. No. 2004/0064714

The above references have been cited because they are relevant due to the manner in which the invention has been claimed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Nadia Khoshnoodi/
Examiner, Art Unit 2137
2/27/2008

NK

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137